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plants.

taken up his residence here. I don't wish to in- great altitude and the anology of European fringe on your valuable columns, but as Mr. C. mountains would induce us to expect it. has taken the trouble to mislead you, I write that completed the list of florists. Now Galvin & lifted high up above the general level.

THE CONIFERÆ OF THE ROCKY MOUNTAINS.

BY DR. GEO. ENGELMANN.

Lecture before the Washington University.

After traversing those immense treeless plains west of us, a chain of mountains rises suddenly and forests, which we had missed so long, again radiation. welcome us. But no deciduous trees, adorned with a fresh fullness of foliage in one season, and entirely destitute of leaves in another, diversify the somber grandeur of those ever green mountain woods, which seem to know no summer nor winter. The natural history of these forests will and not itself already mountain high. be the theme of this evening's lecture.

seeds.

already cease to grow; and they extend up to the Pike's Peak. flanks of the mountains, far above the limit where, on those European mountains, eternal snow and ice cut off all kinds of vegetation.

mountain region is considerably higher than its these mountains.

MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS

The explanation of this interesting and immerely to correct. I wish to give you a correct portant physical fact will be found in the imlist of houses, as we were ten years ago, and as mense extent of that elevated country. We have we are to-day. Ten years ago Mr. Galvin had here no isolated mountain chains or single peaks one house, Mr. Fadden two, R. Wilson three; before us, but a large part of a whole continent

Geraghty nine houses, Smith & Butler six, Fad- It is, in fact, a colossal plateau, rising gradually den six, Hardwick five, Findlay two, McCleash and almost insensibly from the Mississippi to the one, Maher two, Reynolds two, Thurston three base of the mountains; then suddenly, with single houses some two hundred feet long each, these mountains, undulating to another chain Mr. P. Caswell six large houses, Waring four of mountains, until it abruptly terminates on the houses, Lawton three, and many more. We are Pacific; extending from high norther latitudes not going back, Mr. Editor, in Newport; on down into Mexico, and comprising the greater the contrary, I think we are now progressing part of that country—an extent of nearly 3,000 very fast and in a short time we shall be able miles from northwest to southeast, and of about to compare favorably with old Scarborough, and 1,500 miles in its greatest breadth from east to in time we will make a good record in specimen west, taking in the higher part of the plains, and elevated between 4,000 and 6,000 feet above the oceans.

THIS PLATEAU

(or, as we can consider it, this great geological swell of the earth's surface) carries up with it the general temperature of this surface in those latitudes, modified, of course, by the conditions of like the rocky bound of a great ocean. On the its great altitude, the rarity and transparency of slopes, in the valleys of those mountains, trees | the atmosphere, the powerful evaporation and

> The mountain ranges themselves rise like crests or wrinkles from this plateau, and we will not go far amiss if we consider the climatological effects of their altitude as if the base from which they rise were level with the sea shore,

The treeless summit of Mount Washington in Just as in our low lands we observe a great New Hampshire is scarcely higher than the plains diversity of generic and specific forms among our at the foot of Pike's Peak at the site of the flourdeciduous trees, among our maples, our hickories, ishing city of Colorado Springs, where the forests and above all among our oaks, so these moun- only begin. The forests really extend up the tains abound in numerous forms, or species, as mountains from an altitude of 5,000 or 6,000 feet scientific nomenclature calls them, of evergreens, above the sea to that of 11,500, or even nearly of conifers, different in their shape and size, in 12,000 feet, which is 6,000 to 7,000 feet above the their foliage and color, in their fruit (cones) and plain; the very elevation above the ocean at which we find the timber line on the Swiss Alps, These mountains, these forests, commence at | which lie in a higher latitude; on Mount Etna, an elevation above the ocean of 5,000 or 6,000 feet in nearly the same latitude; and even on the -an elevation where, on the Swiss Alps, trees | Peak of Teneriffe, ten degrees farther south than

It is, then, not so much the elevation above the ocean as the elevation above the high plateau which is the essential element in the climatology, In other words, the mean temperature of this and, with it, the distribution of the forests of

MISSOURI BOTANICAL GARDEN.

Another element of great importance is the forests are poorer and are even replaced by the that the atmosphere there is dry; he may assure you that all that is said about the clear skies and Eastern mountains.

Vegetation thrives in this climate best where mountains are high enough and cold enough to condense whatever moisture the winds may have brought from the Pacific Ocean, after having deposited its greater part on the slopes of the western mountains, where, in consequence, fogs are so prevailing and vegetation so luxuriant.

Now, the

HIGHEST ELEVATION OF THE ROCKY MOUNTAINS

happens to be precisely in Colorado, where the great watershed itself and many of its spurs have an altitude above the sea of 10,000 to 12,000 feet, the peaks rising to 13,000 and 14,000, or even about 14,500 feet.

It is a noteworthy fact that so many summits reach to this same altitude, and none are higher. The same is the case in the mountains of the Pacific States. They are real democratic mountains; a great many tower high up, but not one of them attains such a domineering elevation as we find in other mountain systems.

above the timbered region. But snow is found on many of the higher ones all the year round, in localities where the nature of the surface has permitted drifts to accumulate, and has protected such drifts from the too powerful action of the summer's sun.

North as well as south of Colorado the Rocky Mountains do, with few exceptions, not reach to the altitude attained there, and in this circum.

dryness of the atmosphere in the mountains. desolate sage bushes, as they are called, or, pro-The summer tourist may object to the assertion perly, wormwoods. The forests of the central chain of the Rocky Mountains consist exclusively of conifers. The deciduous trees, we find, the absence of rain is, to his certain personal ex- are few and scattered. Along some mountain perience, a great mistake, or, as they often term stream we meet here and there with a peculiar it, "a fraud." And it is very true that in the species of poplar or cottonwood, which, from its months of July and August showers of rain, often | narrow leaves, you would at any time take for accompanied with vivid thunderstorms, are of a willow rather than a poplar—the bitter or almost daily occurrence, and greatly interfere willow-leaved balsam poplar. The quaking aswith pleasure parties. That is really so; but pen is another species of poplar, common as a the quantity of rain in those showers is generally small bush on springy mountain slopes and small, and the rarified air soon absorbs a great valleys; sometimes in wet flats it grows to be part of the moisture. The climate is a dry one. | a tall tree, the bark furnishing a favorite food If nothing else, the scarcity of ferns and the al- for the beavers, which just in such localities most absolute absence of club mosses would used to build their dams and construct their prove it, which in varied abundance adorn the | habitations - used to, for here, also they now almost belong to the things of the past.

On the banks of these streams bushes of alders and willows and two peculiar kinds of birches grow, together with some other small shrubs, and these complete the list of ligneous plants with deciduous leaves; but only the two kinds of poplars mentioned above grow up to real trees. They form no element in the constitution of the forest. No oaks, no walnuts or hickories, no elms or sycamores, the glory of our woods, are seen here.

THE FOREST IS EVERGREEN THROUGHOUT, a feature which, in these parts of the Mississippi Valley, we are entirely unfamiliar with. We have, to be sure, stunted cedars here and there in our woods; in our hilly regions to the southwest are districts of yellow pine, but they are too limited in extent and too much mixed with deciduous trees to produce an effect approaching that of those evergreen mountain forests.

Far north as well as far south of us pines become more abundant. The white pine forests of the north and northeast, and long leaved, the The Rocky Mountains do not really reach into | yellow and other pines of the south and souththe region of eternal snow, though the Alpine east cover, perhaps, as extended districts as the summits of many of them rise 2,000 to 3,000 feet | Rocky Mountain pines, and are far more important in an economical point of view. But even they are not exclusive occupants of their region, and deciduous trees often mingle with them.

But pines are not only now, in our day, or, I should more correctly say, in our present geological epoch, characteristic of certain regions of the globe. Geological investigation has proven that there was a time in the history of our earth when pines were the first, the only exogenous stance lies the explanation of the fact that their | trees in existence. In as early a period as the

Jurassic, and is believed even the Triassic, pines lovers by the catalogues of Messrs. J. M. Thorhave made their appearance, far in advance of burn & Co. We are glad to note these evidences any deciduous or other trees, with the exception of home enterprise. If the people would enof the huge tree ferns, the calamites, Lepidodendra and other uncouth vegetation of the carboniferous and other early periods; and their cones, very similar to our present pine cones, are found in those strata.

Thus the pines are really the pioneers of den scene for a frontispiece. modern forests in early geological times. I have New Jersey State Agricultural Socalled them the first exogenous trees; trees the CIETY.—Report to the Legislature for 1874, wood of which exhibits those concentric layers or contains among other excellent matters two rings with which we are familiar in our common articles on cranberry culture, and roads; the woods, and which indicate the annual addition last especially should be universally read. of the exogenous growth, on the surface of the That good roads pay at any reasonable cost is a wood, under the bark. Palm trees and other general truth. It is not yet clear how to bring endogenous woods increase without regular an- about this desirable end in our country. nual layers by irregularly interwoven fibres.

The conifers or pines, terms which I use here indiscriminately for all the members of the pine family, exhibit to this day their primeval origin in the primitive and simple organization of their reproductive organs, more simple than that of the humblest grass, which thus stamps them as among the earliest of flowering plants, certainly the first of exogenous growth.

(To be continued.)

EDITORIAL NOTES.

edition these gentlemen have issued a beautiour pages.

WEBSTER'S LANDSCAPE AND ORNAMENTAL GARDENER, is a small pamphlet, published by ster's agency.

courage them more they would doubtless be more frequent.

NANZ NEUNER & Co., Louisville, Kentucky, illustrated catalogue of seeds, plants and bulbs, has a handsome lithograph of a very pretty gar-

NURSERYMAN'S DIRECTORY.—By an advertisement in last number, it will be seen that D. Wilmot Scott is engaged on this useful work.

MR. CHARLES DOWNING—The Gardener's Chronicle has an excellent portrait, with an appreciative but very well deserved sketch of his life and services.

OBSERVATIONS ON THE PHENOMENA OF PLANT LIFE.—A Paper presented to the Massachussetts Board of Agriculture, by W. S. Clark, President of the State Agricultural College, Amherst, Massachusetts. President Clark has become well known by reason of the MILLER & HAYES Catalogue. With the spring | numerous experiments in plant life, which he has instituted in the college, and to which we ful colored plate of the new rose "Miller Hayes," have occasionally referred. It is safe to say that named in their honor by Verdier of Paris, and no more useful work has ever been undertaken of which a description has already appeared in in this country, and every lover of vegetable physiology will feel under great obligations to Mr. Clark, for the good work which he has done.

Having recently given a synopsis of many of William Webster, of Rochester, New York, who | the experiments, we need not go over them again has already achieved considerable eminence in his now. If we were disposed to be critical we profession, and is known in connection with some | might say that we hardly think some of the deof the famous gardens of our country. We suppose ductions which President Clark makes, are warthe pamphlet is for gratuitous distribution. It is ranted by his facts; but this does not detract full of excellent hints to those desirous of improv- from the value of these facts, on which of course ing their grounds; with ground plans of some of every reader is at liberty to place his own interthe places already made beautiful by Mr. Web- pretation. The paper is profusely and intelligently illustrated.

AMERICAN ENTERPRISE.—It is often said PRIVET—"Private." When the proof sheets that if we want new things, we have to go to of our last number came before us, a few altera-Europe to find them. Taking up to-day some | tions in the arrangement were necessary, which catologues of a leading Prussian firm, we find | left a blank, that we asked the printer to fill in Hesperochiron Californium, and other new and with some paragraph from the matter "crowded good things offered for the first time, which have out." He selected the answer to a corresponalready been made familiar to American flower dent on "Privet," but supposing we did not

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ROSE CATALOGUE OF E. Y. TEAS.—We note that in this fine list, there is one named E. Y. Teas, by the celebrated French Rose Grower, Eugene Verdier. Here also is the Rose with "such a name," as one of our exchanges expressed it. Deuil de Paul Fontaine was not of course written Devil by Mr. Teas. It was our cotemporary's own blunder, and he was reflecting on its own mistake.

FOURTH ANNUAL REPORT OF THE OHIO AGRICULTURAL COLLEGE.—This gives a good account of the doings of the college for the past year. Among other items, we notice that credit is given to our excellent correspondent, Mr. W. T. Harding, for what he has done in his department. And this moves us to say that our agricultural and educational colleges might do excellent service to horticulture by making the office of chief gardener rank with that of the regular Professors,—so that they could report i themselves on their own doings, and receive pay and position accordingly. Of course there are numerous "gardeners" who would be as much out of their element in a position of this kind as a bull in a china shop,—but then there are also city, who died at his home in Germantown, Pa., "Professors" of all sorts of things, with whom the genuine article would be ashamed to asso- The deceased was a gardener in the employ of ciate. Intelligent gardeners of this class, fit for such positions, are not numerous,—but there are quite enough for a start,—and if the way | Trambly, purchased a tract of the old Covillaud were open for these, with due rewards, there would soon be a good field to select from.

1636.

tern papers that Dr. I. A. Lapham, whom the gretted by all who knew him intimately." whole world honors for his distinguished knowledge and services in geology, botany, and kindred Ropp, Jr., Bloomington, Illinois. This is an exsciences, has been removed from his position as tremely valuable idea, and just suited to the State geologist in order to make way for another | wants of gardeners, farmers, nurserymen, and gentleman, who—so the papers say—can be of everybody in fact that may have to make calcumore use to the "party in power." It so hap- lations, and want the readiest and quickest way

know how to spell it properly, made it Private. tics Dr. Lapham affiliates with, nor do we know The printer was not aware that we hold our- what party holds the "power," so we are free to selves open to a challenge from the champion of offer our opinion that it will be a bad day both any "Spelling Bee" in this country, or he for politics and science when such considerawould not have dared to alter the orthography tions as this reported in Dr. Lapham's case, becomes general. We hope for the credit of science, that there is some mistake in the report. Dr. Lapham is certainly removed,—and if for political reasons, as stated, it will be to the disgrace of Wisconsin as a State, and probably the first case on record in this country, where any man's religion or politics entered into a question of science. We should as soon think of bringing it into the Gardener's Monthly, as of expecting to see it made an element in the appointment of a State Geologist.

> MR. WILLIAM MEEHAN.—When the enthusiasm over California fruit broke out, a large number of the best gardeners of Philadelphia started for the golden land, and among them a younger brother of the editor of this magazine, who was at that time gardener for E. H. Hopkins, of Bristol.

> As the history of these early horticultural pioneers has always been a matter of interest to those who knew them, we may be pardoned for giving place to the following from the Marysville (California) Appeal:

"Intelligence has been received of the death of William Meehan, a former resident of this on the 7th of November last, aged 41 years. Charles Covillaud, the pioneer, for many years. Subsequently he became associated with Julian garden, located on the Simpson lane, and there carried on the business of gardening for several HISTORY OF THE CABBAGE.—Perhaps the years. Some years ago Mr. Meehan's health beearliest mention of the cabbage by ancient came impaired, and after combating his disease English writers is by Sir Arthur Ashley Johnson. for a long time he disposed of his interest here A contemporary of Ashley speaks of the "great | and sought a change of climate in the hope of ordinarie cabbage, knowne everywhere, and com-beneficial results. But consumption had gained monly eaten all over the kingdome." This in too strong a hold, and the result is now announced. The deceased was a native of England. Political Geology.—We see by the Wes- His death, though not unexpected, will be re-

ROPP'S READY RECKONER, published by C. pens that we do not know what " party " in poli- of going about them. The tables are so arranged

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themselves the eminent fitness of the term, readily adopted the suggestion, and catalogued the new distinguish them. I will distribute seeds of C. unnecessary name.—Ed. G. M.]

ing the Doctor to be a Horticulturist and Botan- | Speciosa to any one willing to pay the postage ist of considerable prominence, and realizing on a few." [Mr. Teas seems to have a peculiar weakness in imagining himself "charged" with something, which no one but himself ever thought comer accordingly. As speciosa, as applied in of. We should not suppose it a "crime," much Botany, signifies fine, beautiful, making a good less "a" great crime for Mr. Teas or anyappearance, we knew of no better or more fitting body else to name a Catalpa or any other word to distinguish our improved variety of thing. As we suppose our paragraph was Catalpa from C. Bignonoides. The habit of clear enough to every one except Mr. Teas, we growth of the two trees are as different as can need make no further explanation. We prefer well be imagined, at all ages from one year to "The Teas Catalpa" as a name for a marked twenty; Speciosa being very upright, regular variety like this. We are opposed to latin names in form, and much more vigorous, while the foli- for garden forms. We prefer the simple "Rose age, flowers, and seed pods are each twice as large | E. Y. Teas," to the Rosa Theana, or any thing as in Bignonoides. I have recently compared like it. But if we must have a Catalpa "speciosa," hundreds of trees in various localities, on different | please let it be Catalpa bignonoides, var. speciosa, soils, and of different ages, and find the distinction and the only ones to object will be the general uniformly so well marked that any observer can tree planter at the awfully long and as we think

Literature, Travels & Personal Motes.

COMMUNICATIONS.

BY DR. GEO. ENGELMANN.

Lecture before the Washington University. (Continued from page 153)

Leaving these more strictly scientific investigations, and turning to the utilitarian aspect of this family of plants, we find its members to be of the utmost interest, of the utmost importance to the human race—

FROM THE CEDARS OF LEBANON,

which built Solomon's Temple, to the spruces of Northern Europe, which furnished the masts and spars for all the navies of the period; to our own white pines, which, together with some other pines of the South and East, and the pines and red woods of the West, supply the indispensable material for building, on land as well as at sea.

I have mentioned the red woods, one the Sequoias - more important to man than the other —the mammoth tree, and scarcely less colossal. They, too, are conifers, and so are the junipers, the cypresses, and even our taxodium—the identity or similarity of vegetation, after the

see, are evergreens. The larches, you know, and some others, also, lose their foliage in win-

The pines then, with their woods, principally, and also their other products, which I have not mentioned, e. g., turpentine and pitch, are the most important trees to man—at least in the northern hemisphere; and wherever soil or climate do not produce them, commerce carries them.

I have alluded before to the distribution of conifers, and that they are often more or less mixed with deciduous trees, but on the higher mountains, and in high northern latitudes, do they exclusively constitute the forest. We touch here at that peculiar feature of the distribution of plants over our globe so odd at first sight, and so easily explained, when we look closer at it. I mean the similarity of a high northern and a high mountain vegetation. This similarity goes so far that the circum-polar vegetation is, to a great extent, the same in America, Asia and Europe; it sends its colonies southward on the high mountains or isolated peaks, which rise much like islands in an ocean, and retain their bald cypress of the South—not all conifers, you great geological changes of past epochs have



MISSOURI BOTANICAL GARDEN long since severed their immediate connection with the centers of distribution.

Thus we find on the Rocky Mountains, and especially on their Alpine summits, many plants which are familiar inhabitants of the European Alps, or the Scotch mountains, or the Siberian Altai, or even of our eastern Mount Washington and similar peaks.

Mountains, never the same, but often similar is great latitude and individual liberty in the use species—representative species as they have been termed. Not a single pine in that region is identical with Eastern pines, or with those of the Old World. On the other hand, the similarity of the coniferous vegetation of these mountains and that of

THE CALIFORNIA SIERRAS

is very great. Almost all the coniferæ of Colorado extend to or reappear in California; but this atter country produces quite a numer of species unknown in Colorado. It is richer in varied forms, as we may expect from the varied conditions of soil and climate.

mountains nourishes a large number of species. We find there ten different pines and three junipers. Ten of these thirteen conifers may be seen other conifer a hemlock, and adopted these names in a certain district of Colorado-the heart of for entirely different objects, they adopted errors the mountains it may be called—within a couple | and propagated them, and by the lapse of time of miles.

But do not think that these pines are indis- eral consent. criminately mixed, like the trees in a park or an AMERICAN JUNIPERS WILL FOREVER REMAIN arboretum. Oh, no; all occupy their distinct to certain latitudes and altitudes.

may become tedious.

Follow me rather into the mountains, where some of you may have rusticated, and may have seen for yourself, if you have an eye for such observations.

Not far from Denver, between two table-mountains, at Golden, opens the picturesque Clear Creek Valley, which cuts through the mountains from west to east, and carries the waters from the highest range—they call it the Snowy Range | fifty years ago, explored the vegetable treasures -roaring or tumbling down to the Platte River, and thus finally to the Missouri, and then past | fearlessly and successfully penetrated as far as our city, as a minute tribute to the Mississippi | the coasts of Oregon and California, to find a River.

In that wild gorge between overhanging cliffs, sometimes rising to the height of 500 feet, we would not expect forests; scarcely trees find a foothold,

yet here and there where the slopes are not too steep, or the rocks leave a little margin on the edges of the creek, are seen two of the most wide-spread conifers of these mountains, and, in fact, of the whole elevated region from the fortyninth parallel down into Mexico.

The first and foremost of these is the heavy pine Pinus ponderosa; the other is the Douglas spruce, But in the pine family we meet in the Rocky called by the mountaineers, usually—for there of such names in a new country-called, as I say, yellow pine and hemlock, in remembrance of the trees with which the colonists had been familiar in their far off Eastern home.

I have got to speak of names, words, and am thus trenching upon ground which my predecessor in this hall, in last week's lecture, has so charmingly illustrated. But I fear that I cannot entirely agree with him. The names familiar to us as those of the homes of our youth, certainly revive the pleasantest associations, and if we give them to our new abode, if we found a New York or a Nouvelle Orleans, no fault And yet even the limited extent of the Colorado | can be found. But if the first settlers, with more imagination than knowledge, thought they recognized in our junipers a cedar, or in that the abuse has become a use, sanctioned by gen-

CEDARS.

and peculiar stations, though some are more though no real cedar may be found nearer than generally distributed, while other are confined the Lebanon, the Taurus, or the Atlas. But we may attempt, with some hope of success, to prevent the Enough of abstract generalizations, which introduction of false names in our day. We find no Eastern white pine or yellow pine or hemlock or balsam in these mountains; and people would understand one another better if they could agree upon appropriate names for objects which are of daily use and interest.

But let us return to our pines. Both species were discovered and brought to the knowledge of horticulturists and botanists by that intrepid Scotch traveler, David Douglas, who, not quite of those then far off wilds which he several times horrid termination of his adventurous life in the pitfalls of the Sandwich Islands.

Fine trees, raised from the seeds which he sent home, now adorn the parks of old England,

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at Elvaston, Dropmore, Chadsworth and the the sombre colors of rocks and of trees about Douglas' spruce perpetuates his name with the spruce bushes may be seen in cultivation. botanist as well as with the literary public. But | Menzies, after whom this spruce has been named, in the mountains and woods personal names do was also a Scotch explorer, who discovered it not seem to succeed; they may seem to indicate a about eighty years ago, on the shores of the personal claim which, I believe, is never sanction- | Pacific, where it extends even up to Alaska. ed by general use, and so we may as well drop it and adopt or propose that of mountain hem- it is no forest tree, and at least in Colorado it is lock.

The mountain hemlock is really closely related do.

in the now famous Black Hills. It rises up the works. gles with the true mountain pines. The heavy lage with the proud name, which expresses the and solid resinous wood of this pine is much accessible, and for railroad ties invaluable.

BUT WE ARE STILL IN THE CANYON, as they call these gorges, with the significant | A LOVELY VALLEY OF NATURAL MEADOWS, Spanish term. There, on the water's edge, scarcely in any locality but where the torrent may bathe | Lincoln Mountain (not the higher and better its rootlets, a third conifer, the valley spruce, or, as botanists call it, Menzies' spruce, sends up its | the Arkansas) on our right, and Douglas Mountapering trunk. Old trees, with a gray bark that reminds one more of an oak than a pine, look desolate enough, more like a skeleton of a tree, with their thinly covered horizontal branches, showing only in the very top the long, pale, glistening cones.

The young trees one would scarcely believe of the same kind, so different looks their charming

botanic gardens of Kew and Edinborough, and them. In many yards about Denver these bluish

But, extensive as is its geographical range, only scattered along the streams.

The wild Clear Creek canyon is passed. It to that charming Eastern hemlock spruce, now | now expands into a valley, of narrow dimensions familiar in our gardens, but it is a coarser, less | yet, but mostly with less abrupt mountain slopes. graceful tree, which bears those pretty, bracted The same trees continue yet, here and there or, as it were, fringed cones, so eminently charac- gathered into groves or small woods. The warm teristic of the plant. Its wood is coarse, and not springs of Idaho have the same vegetation, and much esteemed, but nevertheless used a great we continue in the valley up to 8,000 or 8,500 deal, where better cannot be had. This tree is feet above the sea before we meet with any other scattered over the mountains far and wide, and species of our coniferous friends. On the upper reaches pretty high elevations, but does not branches of Clear Creek, in the neighborhood of form entire forests, as some of the other species | the town of Empire, with its abandoned gold tunnels, and of Georgetown, with its rich and The heavy pine is one of the largest and finest prosperous silver mines penetrating deep into trees of Colorado, and, as I have already stated | the dark and forbidding rocky faces of its everthroughout the West, often three feet through and opposed Republican and Democratic mountains eighty feet high in the mountains, it grows to -there, where the mountain sides tower higher, much larger dimensions in more fertile and milder | where their summits attain Alpine elevations, parts of the country, alway distinguished by the other conifers replace those seen below. But thick, red brown bark, the long and stout leaves, | this dreary yet romantic, bustling yet desolate, and the good sized very prickly cones. On the valley of Georgetown is not the place for us to foothills, especially on the divide, as it is called, study and to admire the forests; they have disbetween the Platte and Arkansas Rivers, it con- appeared, whatever there was of them, into the stitutes forests, and is said to be the principal tree | hungry maws of those roasting and smelting

mountains as high as 9,000 feet, where it min- Follow me rather to that sad and quiet vilexcited hopes of a few years ago, perhaps to be used in those regions where it is abundant and realized a few years hence. South of us, as we stand in the sloping streets of Empire City, expands

> and some attempts at agriculture, closed in by known Mount Lincoln on the headwaters of tain on our left, names which, like those of the Georgetown Mountains, ever will designate the period when these wildernesses were first colonized, and the land marks named, by a people who brought with them the political interests and the political strifes of their Eastern homes.

This valley is shut by a low rocky barrier, the abrupt and dangerous Georgetown Pass, which pale bluish foliage, agreeably contrasting with leads towards the valley of that name. Behind

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this pass higher mountains rise, and further off the Alpine summit of the Sugar-loaf terminates the distant view. In front of us, in the wide opening of this lateral valley, a ridge of low grassy hillocks seems to separate it from the main Clear Creek valley. These are the moraines, sects the past year. It is now almost time for the products and the witnesses of the old glaciers | the jaws of some of them to be opened again. which, in earlier geological periods, filled these I shall say nothing in detail of the chinch bug, valleys with their ice masses. Such moraines which has been far more destructive to Kansas are found at the mouths of all these lateral val- crops than the locust, for it does not attack horleys of higher mountains, and they would have shut off the valleys and made them lakes or I expect to make a sort of random sketch, for swamps, if the mountain torrents had not broken through them at one place or another, cutting a deep gap for the issue of their waters.

any such cacti. It has another interest for us, as it is the same pretty species which was first discovered in Utah by Captain (now General) Simpson's exploring expedition, in 1858 and 1859, and which has been named and described by me, years ago, as Echinocactus Simpsoni.

Let us now follow the main valley westward, duce a good crop of potatoes and turnips, and destroyed under the most diligent hands. In some oats, which never mature—such is the large vineyards they were not proportionately climate in these mountains. Near a saw mill, numerous. It is strange to say, only he who had where the well named Mad Creek rushes down, a few grapes or blackberries was the one to leaping and tumbling from the snow fields on suffer. the flanks of Parry's Peak, several pines, we Next came the Plum curculio. We had an have not yet seen, make their appearance. The abundant crop of the native Chicasa plum, but .place of the valley spruce, which is no more seen | woe to all the others and to nectarines and aprihere, is now occupied by the much handsomer cots also. Well now I must take that back for in mountain spruce, a kind of balsam fir, closely one case I did see several trees loaded with the related to the Eastern fir, but larger in all its best of plums and another in which a few necdimensions, often accompanies it; the straight tarines were left. But so long as we continue pine, and here and there the squirrel pine, com- to improve the Chicasas we may look to be able plete the list of conifers seen in the Upper Clear to yet outgeneral the little turk. The great, Revitate Creek Valley. Only one mountain pine, for which the dreadful, the much-talked of grasshopper I would propose the name of the hickory pine, the toughest and hardest of all, don't seem to care to leave its high rocky slopes for the more sheltered and more fertile valley.

The others also have their homes higher up on the mountains, but they send down with the streams their outposts into the valley below.

(To be concluded in next number.)

INSECTS IN KANSAS.

BY H. E. VANDEMAN.

You perhaps remember that I said when Jack Frost had locked the last devouring jaw, I would write you somewhat of our experience with inticultural crops but the cereals only.

I am not an entomologist strictly so called but only an insect fighter. The first of these enemies to visit us was the rose-chafer. For four years The moraines are generally covered with grass | this insect has been so numerous as to be very and low herbs, and between these we are sur- destructive. For three years it gained in numprised to meet with an abundance of globose or | bers very rapidly, even so much so as to almost ball shaped cacti, from the size of a hickory nut | devour the entire crop of grapes and blackberries to that of a large apple—plants which we would in the bloom if not persistently fought. In some much rather have looked for in the more temper- cases no means were found to be effectual because ate Mexican countries than in these high moun- of the numbers to be caught. But last year tains, probably the highest and most northern of there was a slight decrease, and we hope they may pass to another region. I should say that this insect up to this time has confined its depredations to the half dozen counties in the South East corner of the State, but is moving northward and westward. But those who were plucky enough to diligently use a basin with a little water in it caught enough of the bugs to save their open at first, were some fields well irrigated pro- grapes and blackberries, but the roses they almost

or locust was the third on the programme.

Now I want to say just here, that there has been much said that is calculated to mislead, and that is really false about the ravages of that insect in these parts last year. In the Nothern and Western portions of the State it did much more damage than in the Southeastern. The great reason of this is that it did not reach here until

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our impression that we were almost alone of cone one described as pointed, and the other in horticultural literature in maintaining that retuse, and also differing in their bracts and the juices of plants, commonly hardy, cannot scales. One of these cones had fallen to pieces wholly freeze, and yet the plant or the parts on its journey, therefore we are not able to speak frozen retain its life.

But we see that the Gardener's Chronicle, edited of injury by frost to wholly hardy plants, in that from Dr. Engelmann's letter to Dr. Hooker, he this; but at all events when this is the case, the dark green foliage, white on the lower side, sap has not the power to exclude the frost, and the result it is "frost bitten" and dies. This is the name of amabilis, and another at Dropmore, same doctrine we teach.

spent last season in Southern Utah, exploring the botanical features of that country, and finding some twenty species, which were before unknown, and which have been named accordingly. An amusing criticism appears in a western agricultural paper. The editor thinks Yucca brevifolia must be wrong. He "cannot find it in Loudon,—and it is probably Yucca superba." Yucca baccata, he says, "is not described by the old standard authors, and is probably Yucca angustifolia" He thinks Dr. Parry utterly mistaken in his classification of the Larrea Mexicana, which in his opinion, "should be placed among the Laurus tribe." Malvastrum coccineum, he thinks, "must certainly belong to the Malva tribe.' He does not feel sure about the Lycium, but quotes what "Clusius says" about them, and so he "might go on, and cover a quire of foolscap." In physiological botany, we often find matters questioned because 'Senebier' or T.A. Knight or some other one hundreds of years ago knew nothing of them,—but it is something new to have similar criticisms in this department.

cones and foliage of an interesting Conifer (Abies of about 5000 to 9000 feet. Mr. Andrew Murray at p. 105 of the present above it, up to 11,500 or 11.800 feet. P. grandis we readily endorse. The cones re- 7000 feet. mountains in Southern Colorado, and the others | feet. from Southern Utah. Of these Dr. Englemann Juniperus communis.—Up to 9000 or 10,000 thinks there are two forms, differing in shape feet elevation.

on that point; but so far as the bracts and scales are concerned we must confess ourselves as being by one of the foremost of vegetable physiologists, unable to distinguish between them. With re-Dr. M. T. Masters, is evidently of the same gard to the "question of which is Douglas" opinion. In an editorial article on the subject | Abies grandis and which amabilis?" quoting paper of May 15th, it explains that plants usu- says, "I should like to know whether any of ally hardy, "may have its sap crude," though the different forms have yet borne fruit in Engwe do not quite understand what is meant by land;" and he states that a tree with very dense, which he saw in the Edinburg Garden under the where it was called grandis, are undoubtedly NEW PLANTS OF UTAH - Dr. C. C. Parry the true amabilis. It is singular, Dr. Engelmann says, that none of the forms of grandis should have fruited in England, while in Colorado it fruits at the age of twenty-five years.

> The following list of Colorado Conifers, with the altitude of each species, from the pen of such an authority as Dr. Englemann may be valuable to some readers of the Gardener's Chronicle:—

Abies gradis.—Altitude from 8500 feet to the tree limit.

A. concolor.—Between the waters of the Platte and Arkansas; between 6000 and 7000 feet.

Tsuga Douglasii. -6000 to 10,000 feet.

Picea Menziesii.—In valleys near mountain streams; 6000 to 8500 feet; never forming forests.

P. Engelmanni. - In valleys, and especially on mountain slopes, scattered, or in extensive tracts; 8500 feet, to timber line 11,500 feet.

Pinus contorta. - Extensive forests on mountain slopes; 90000 to 10,500 or 11,000 feet; in valleys running down, scattered as low as P. Engelmanni.

P. Ponderosa. - Lower down at the base of the CONIFERS FROM COLORADO.—Some good mountains than any other Pine; at an elevation

concolor) have recently been received at the P. aristata. - 9000 and, more especially, 10,000 Kew Museum. Its history has been given by feet to timber line, and in scraggy bushes even

volume of the Gardener's Chronicle, and Mr. P. edulis.—Oaly in Southern Colorado, from Murray's opinion as to its close resemblance to Pike's Peak southward to between 6000 and

ferred to above were sent by Dr. Englemann, P. flexilis. -9000 to 10,500 feet, probably not some from the gorges in the foot-hills of the up to 11,000 feet, in valleys coming down to 8500

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the territory in the southern part (Colorado Springs to the Arkansas) in very unusual forms, short trunks, broad flat heads, &c.

J. occidentalis.—Only from Pike's Peak south-

QUERIES.

red to in the following from D. G., Poughkeepsie, can name a willow from a small sprig with any

J. virginiana.—Up to 9000 or 9500 feet; over | give us the right name of the enclosed flower; it is one of the old greenhouse plants; most of them are getting all forgotten now a days, and even good gardeners do not know them, not even our neighbor, Mr. F. W. Poppey. I took it for a Brugward with Pinus edulis, especially on the Upper mansia; it flowers mostly in the fall; perhaps you have the name, and will give it in the

NAME OF WILLOW.— Young gardener, Great JUANULLOA PARASITICA, is the plant refer- Barrington, Mass. It is but a chance that one N. Y.: "Will you please and see if you can certainty. Yours appears to be Salix purpurea.

Literature, Travels & Personal Motes.

COMMUNICATIONS.

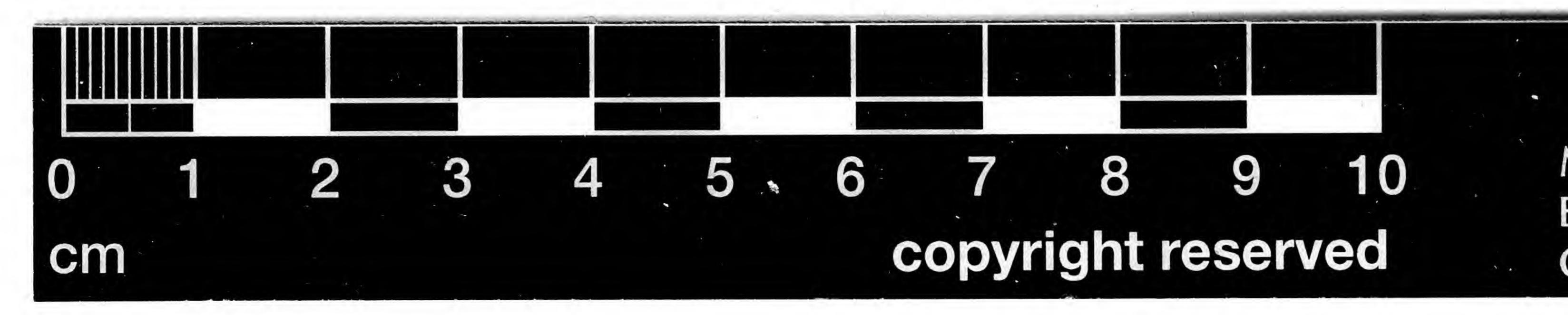
THE CONIFERE OF THE ROCKY MOUNTAINS.

BY DR. GEO. ENGELMANN. Lecture before the Washington University. (Continued from page 184)

The stateliest, most striking of all, is the mounthe great fir, our old friend Douglas named it, when he met with it on the waters of the Columbia River. There it has a right to the name; there trees of five or eight feet in diameter and 200 feet high are said to be not rare. The severer climate of Colorado never permits them to reach such dimensions. The largest I | the abundance of low rose bushes is striking, have seen were scarcely three feet in diameter. such as we have not met with in the lower valand 100 or 120 feet high. But a stately tree it | leys, covered with fragrant flowers in one season, is, nevertheless; look at the smooth, white, and not less beautiful in autumn when their column like trunk; the regular pyramid of the large, bright pendulous pods glisten in the sun, head, tapering to the very top with spreading | brighter than the finest corals; nor must we branches; and spreading foliage, lighter green than the sombre spruces, with a paler tinge on the lower surface, and in the top, on the upper- blue and red huckleberries, which for acres and most branches, those deep purple cones of cylinder form, rising perpendicularly up like huge tapers of a Christmas tree. Its wood is coarse and light, and of no more value than that of most firs is. We do not find forests of it, but meet with it in suitable damp localities, almost up to the timber line, and cannot help always a welcome to its form, as graceful as it is majestic.

The valley is narrower, the creek wilder, the mountains higher; now perpendicular cliffs jut out from the mountain side, with here and there a lonely pine, like a sentinel, on an inaccessible pinnacle; yonder the more even, I can not say the more gentle slope, bears the thickest of those grand pine forests, which for miles and miles tain balsam or mountain fir: Abies grandis, clothe with eternal verdure the flanks of those giant mountains as high up as physical causes will permit them. to 11,500 feet altitude—above that elevation no trees can live.

But we are in the valley yet, and can not leave it without noticing the numerous flowers which spring up in the gloom of the forest. Above all forget the red raspberries, the most delicious and most plentiful fruit of the mountains, and the acres cover the soil under the pines. Several kinds of gooseberries and two of strawberries are also found here, but not in sufficient quantity. Other ruits, cultivated fruit, are unknown in this climate, unless they are brought from California, which they often are. Another humble, but juite interesting, berry of these higher mountain woods is what they call the mountain grape. What botanist, what pomologist could guess





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that thus they name and thus they use here the explorer of Colorado, Dr. Parry, of Davenport, black, astringent berries of the low, evergreen, mountain barberry, sometimes called mahonia? Fermented with the addition of sugar, the juice really makes a palatable and wholesome wine.

Two trees only constitute the bulk of the forest the tree limit.

as well to the mountains of the Pacific States as to the Rocky Mountains, with the heavy pineone of the widest-distributed Western pines, but New Mexico or Arizona.

Look at the straight, slender trunk, covered with thin, scaly, light gray bark, and say whether straight pine is not the more appropriate name? The dark green, short and stiffleaves. in pairs, characterize the tree not less than the small prickly cones which cover the branches, old and young, in long strings. These cones do not drop at maturity; they often do not even open their scales to cast the seeds, as if to store them up for future use. Thus, the branches are loaded with the cones of sometimes eight or ten years. No European pine has such a tenacity; and of our Eastern pines only one exhibits something like this character, and has from this property received the name serotina, the tardy one. Quite a number of Californian and Mexican species have the same peculiarity, the purpose of which is yet unexplained. The trunks of the trees are only one or two feet thick, but the change in the size or closeness of the trees; the wood is of excellent quality.

The mountain spruce, A. Engelmanni, now mingles with this pine at its upper limits, and soon takes its place completely, and forms the highest forest belt. You recollect that we have met with it in the valley, not far above Empire, but its true home is in the high mountains. Here, just below the Alpine slopes, it is the prevailing forest tree, and extends south to the

brought it to light, twelve or thirteen years ago. The cinnamon colored thin bark, detached in flakes, covers the straight trunk, on which the narrow top rises like a spire, densely covered with dark green, or sometimes paler or even here. The straight pine covers the upper part | bluish foliage. Then pretty pendulous cones of of the valley and the mountain sides from 8 500 purplish or bronze color are crowded on the exto about 10.500 feet altitude, and then gives tremity of the uppermost branchlets. It is a way gradually to the mountain spruce, which valuable tree, with soft, white, close grained is the prevailing tree at the last 1,000 feet below | wood, whence the mountaineers often call it a white pine. A gentle bridle pass leads us up The tree I would designate as the straight through these woods until we reach open ground; pine was named by its discoverer contorta—the a charming little park, covered with flowers, crooked one—perhaps on account of the frequent- irrigated by springs which send off their waters ly twisted cones. Douglas, so often mentioned, to both oceans; we are on the crest of the mcunfound it near the mouth of the Columbia River, tains, in one of the best passes, theeasiest and whence it extends up and down the coast, and | pleasantest in these mountains, Berthoud's Pass as it is named after one of its first explorers. Back into the high mountains of the head of Clear Creek, forest clad below, bare and enclosa more northern tree than that, not found in ing extensive snow banks higher up—the view opens, and forward into the wide expanse of Middle Park, with its grassy valleys and rocky pinnacles—right before us, in the distance the rugged forms of Long's Peak.

In the pass itself dense groves of the spruce trees two and a half and three feet in diameter, attract our attention. We have examined the age of smaller trees, just cut down, in the construction of a wagon road over the pass, and find that trunks of six or eight inches in diameter show 120 to 180 annual rings, so slow is their growth; those largest ones must then date back 600, perhaps 800 years.

But the pass can not hold us long; we hasten to see the last of the timber, and explore what we have repeatedly spoken of as "timber line."

On both sides of the saddle-like pass the mountains rise higher. We follow the woods up four or five hundred feet, without noticing much larger ones, to be sure, have disappeared, but middle-sized trees crowd around us, till suddenly we find ourselves on the edge of the timber, and the Alpine slopes open out before us grassy and flowery; or, as the case may be, stony and rocky, rising sometimes between 2000 and 3000 feet higher up. But the forests do not give up their domain without a struggle. Between their boundary and the bare summits is a belt of, as mountains of Arizona, and north and west it were, debatable ground, where, scattered, the through Montana to Oregon; but its peculiari- | hardiest pines try to encroach, gain a foothold, ties escaped botanists until the first scientific | persist, perhaps for years, in constant struggle

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with the elements, are injured, thinned out in pine, but with very different, short, oval, dark colder winters, until only a few of the toughest purple cones. are left, scattered, perhaps, where the ground | On Douglas Mountain, and here and there affords a slight protection, but always woeful- over the higher mountains, between 8,000 and ly maltreated and crippled by the overpowering 11,000 feet altitude, still another and very sinforces opposed to them.

the elements.

Suppose we approach it from the east, or on an times almost prostrate on the ground, smaller and farther apart as we rise higher. They are apparently well covered with leaves, and abun- on the seeds at leisure. dantly branching, and often of unimpaired fertility, and covered with cones.

We have passed this belt, and now turn round. branches only are in sight; stripped of leaves, Pacific. and of bark even, and bent over to the east.

ing hail, against which there is no protection in | that your patience is, I fear, well nigh exhausted, these altitudes, have killed the entire western and I will scarcely find time to do more than half of these bushes; only their eastern succum- allude to the conifers which are peculiar to bent half lives a precarious life.

among the hundreds of mountain views annually ents of the Arkansas River. taken preserved a single one that I could discover of such remarkable scenery?

Alpine domain is our mountain spruce, the other | a northern from a southern flora. is the hickory pine which we meet here for the barren enough, while the spruce prefers more tains. fertile and damp ground.

The hickory pine (Pinus aristata), also a discovery of Dr. Parry, has its name from its very hard and tough wood, which when communication with the east was more difficult than it now is, was used where we employ maple or hickory. | the Ute Pass near Manitou, Cheyenne Canyon,

gular pine occurs—the squirrel pine P. flexilis— This belt, this bat le field, narrower or wider, still more like the white pine, but with large ediaccording to the nature of the ground and the ble seeds, much esteemed by the former Indian steepness of the slope, has amost picturesque owners of the soil, and as well by the squirrels, but at the same time a most dismal aspect, the some species of which inhabit these woods, and very image of living nature in its combat with leave their traces in the shape of torn and plundered pine cones under the trees.

The action of animals to obtain the seeds of eastern slope. The last trees, still a foot or a some of these conifers is often very ingenious. foot and a half in diameter, and thirty or forty | The cones, as I have said, usually open at matufeet high, are behind us, before us, a few hun- rity, and scatter the seeds far and wide. To dred yards, or, may be, a quarter of a mile, prevent such a waste of the good thing, some crooked or gnarled bushes bent toward us, some- animals, most probably birds, cut the small branchlets just before the cones mature, and drop these to the ground, where they can feast

> In two of the junipers of the Colorado Mountains we meet old acquaintances.

One is the well-known juniper bush of the What a moment ago were fresh and fruitful, North and East and of Europe, and the other, though misshapen bushes, are now turned into what we usually call our cedar. They are the white and ghastly skeletons. Bare trunks and only conifers extending from the Atlantic to the

We have lingered so long among the pines of The terrible Western winter storms and pelt- the Snowy Range and the Clear Creek Valley Southern Colorado; to that part of the State-Is it not singular that photographic art has not | State it is since yesterday - watered by the afflu-

An elevated country between Denver and Colorado Springs called the Divide separates not One of the pines which thus encroach upon the only a northern from a southern slope, but also

The mountain hemlock and the heavy pine first time. We might have seen it, however, on are common to both districts; other north-Douglas Mountain, near Empire, where it comes ern or sub-alpine conifers are also found in condown to about 900/feet above the ocean. It is genial locations of the southern mountains; but often seen in Colorado, from that altitude to a few species, which we have not yet seen, make the timber line, wherever the soil is rocky and | their appearance about the base of the moun-

A new balsam fir, named by me many years ago-from Santa Fe specimens-Abies concolor, because of its light bluish leaves, of the same color on both sides, graces the gorges in the sandstone formation at the foot of Pike's Peak, It is one of the five leaved pines like the white and, above all, the charming Glen Eyrie, a tree

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just now being introduced.

How different is the scenery near Canyon City, where, fresh and green, the young Arkansas breaks through that great gap in the mountains. No woods are here, such as we have seen in the Clear Creek range; dark clumps of bushy trees dot the rocky slopes; southwestern forms which here find their northeastern limit.

The nut-pine is one of them, the small, round, knobby cones of which include large edible seeds, well known in the markets of New Mexican towns by the name of pinones. Dr. Wislizenus, of our city, brought the first specimens of this tree from Santa Fe, which I described under the name of Pinus edulis. In New Mexico, as well as Southern Colorado, the wood is considered the very best fire-wood.

The other tree or bush, as the case may be, generally growing with the nut pine, is a kind of juniper or cedar-Juniperus occidentaliswhich I only mention as the last of the thirteen Colorado conifers, because said to be an entirely useless tree. It does not split, but splinters; and in an open fire cracks and flies, but is excellent in a stove. It is used for fences, but splits so poorly that it is not otherwise used.

I thank you, ladies and gentlemen, for the attention with which you have listened to, perhaps, too dry details; but let me hope that what I have said may add to the interest and pleasure with which one or the other of you may hereafter visit the forests of the Rocky Mountains.

EDITORIAL NOTES.

FIELD AND FOREST.—This is the title of a new monthly magazine of Natural History, issued by the Potomac Naturalist's Club, and edited Mr. Charles R. Dodge. It is much of the in age, this honored Society shows all the vigor character of the excellent little Bulletin of the Torrey Botanical Club, only that it takes in every branch of natural history. Such well it is quite as useful as the exhibitionss. It is no number.

REPORT OF THE STATE ENTOMOLOGIST OF THE STATE OF MISSOURI.—As our readers mostly | The Massachusetts Society gives the former fully know Missouri has a State Entomologist, em- in its Annual Report, and in these transactions ployed at a small salary, to find out all that can be gives abstracts of discussions on topics brought

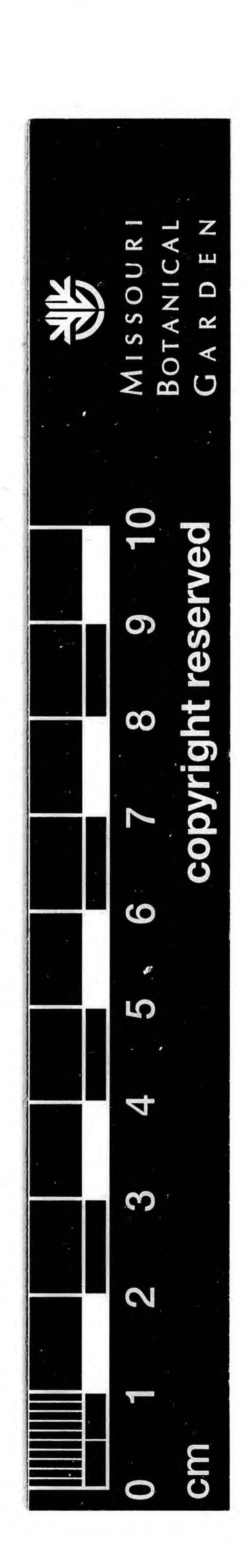
that will be highly prized in Europe, where it is noxious or beneficial, on the agriculture or horticulture of the State. Mr. C. V. Riley has filled the office since it was established, and the result of his labors is not only a great benefit to Missouri, but the whole world feels under an obligation to that State, for what it is doing in this line for knowledge.

The present report has an exhaustive article on the Potato Beetle, containing all that is absolutely known about it both in its natural history, and the means for its destruction. Similar respects are paid to the Chinch bug, so destructive to Western wheat fields.

TRANSACTIONS OF THE KANSAS STATE HOR-TICULTURAL SOCIETY FOR 1874. From Geo. E. Brackett, Secretary, Lawrence.—It gives an abstract of the laws that have been made by the legislature on various arboricultural and horticultural topics, and the body of the work made up of reports from various parts, and discussions at the meetings; many of the essays are of a high order of intelligence, and would do credit to a more pretentious work. The Report is not only full of interesting matter to Kansas individually, but shows what Horticulture has done for it.

TRANSACTIONS OF THE ILLINOIS STATE HOR-TICULTURAL SOCIETY. From O. B. Galusha, Scretary, Normal, Illinois.—This is a large volume of 200 pages, beautifully bound, and profusely illustrated by cuts of injurious insects, of which full descriptive accounts are given. When the great value of these Reports are taken into consideration, it is surprising that all the leading horticulturists and agriculturists of the State are not members, yet only about one hundred are on the roll. In a prosperous State like Illinois this ought at least be multiplied by ten.

THANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY, 1875. From E. W. Breswell, Corresponding Secretary, Boston, Massachusetts.—At the present time, growing and activity of healthy youth. It is not long since that the publication was commenced, but known scientific names as Dr. Coues, Dr. Abbott, honor to an exhibitor to take premiums unless Prof. Cyrus Thomas, Dr. Geo. Vasey, and Prof. | the horticultural world knows of it, nor does the Chickering appear as contributors to the present world care to know Mr. this or that took a premium, unless it knows what he took the premium for, and all the particulars go with it. known of the insects that may have an influence, out by the exhibitions and exhibition incidents.



It is a pity there is no index. In a general way the fifteenth year for planting. From the blos-G. Smith; Shade Trees by John G. Barker; Pe- bearer, there are always blossoms, green fruit largoniums, by Wm. Gray, Jr., with a list of and ripe on the tree. The yield is most plentiful experience; Ferns by John Robinson; on Seedling | yield per annum of a healthy tree is 5lbs. of the "Sweet and Sour Apple" was discussed; one thousand trees, requires the labor of seven Parlor plants by Mr. Rand; Orchids by James | coolies, fifty oxen, and two ploughs, for cultiva-Cartwright; Gardening by C. M. Hovey, and an | tion and harvesting. The fruit is gathered by address by Mr. Parkman. If there be any of means of a hook, attached to a long pole. It is our Massachusetts readers who are not members shaped like a Pear, about the size of a Peach, of the Massachusetts Horticultural Society, and and has a delicate "bloom." The nut has three so do not get these Transactions, they miss some | coverings; the outside one is a thick fleshy husk, excellent and profitable reading.

HORTICULTURAL WRITERS.—A correspondent calls our attention to an editorial in Ameri- sweetmeat in the East Indies. Under this husk ester with a good reputation, but which does not tened by hand, and dried on mats in the sun. come to our exchange table, which says that the It loses its rich scarlet, and becomes a dull writers in the New York Tribune do not know as orange color, and requires to be kept perfectly much as they ought to do, "probably because dry to preserve its flavor. After the Mace is they do not live at Rochester." Our correspon- removed from the fruit, the nuts, in their brown dent should not feel badly about this, however. shells are placed on hurdles over a slow fire, If Rochester people know as much as they ought which is kept constantly burning under them to, and have no more to learn, it is not a safe for two months. The nuts then rattle in the place to live in. But we doubt whether any con- shells, which are cracked with a wooden mallet, siderable part of intelligent Rochester Horticul- the sound nuts selected and packed in wooden turists share this sentiment. The writer merely cases, and sprinkled over with dry sifted lime,

Senator Hamlin, acting under the whip of the weight. Poor ones are light and easily detected. Adams Express Company. It appears it was - The Garden. not intended to include transient newspapers, Cutting Red Wood Timber. - A corresponto keep the advantage they have gained.

every family, is indigenous to the Moluccas,

we note that there is a charming essay on the som to the ripening of the fruit takes about Azalea by Col. Wilder; on Strawberries by B. seven months; but as the tree is a perennial the best kinds, and no one can speak from better in the last four months of the year. The average Fruits by J. B. Moore, in which the origin of Nutmeg and 11 lbs. of Mace. A plantation of having a strong flavor of Nutmeg. This husk preserved in syrup when young, is a favorite can Rural Home, an agricultural paper of Roch- is the bright red mace, which is carefully flathad a "jolly" moment, when he penned the lines. and are then ready for market. The best Nut-THE POSTAL LAWS -The Boston papers say megs are dense, emit oil when pricked with a boldly that the postal outrage was the work of pin, and can always be known by their heavy

perhaps books and some other things, which do dent of the Country Gentleman says: Striking off not interfere much with the express, and it is from the beaten paths of tourists, the writer latesaid that the "law will be repealed next winter." ly determined to find material for a letter to the But unless our Horticultural and Agricultural Country Gentleman in a visit to the red-wood friends look pretty sharp they will find the law forests, and the saw mills, on Russian River. will not be altered as it affects them. The Adams | The nearest mill was twenty miles distant. Express Company having been powerful enough | But such was the purity of the atmosphere, the to ride over them, will doubtless be in a position | timber can be distinctly seen looming up in its gigartic height twenty miles away, on the THE NUTMEG.—This spice, so much used in mountains. After a sharp drive across the plain we descended to the river through Pocket canyon reaching its greatest perfection in Amboyna. where torests of fir and laurel line the hill sides. This island belongs to the Dutch, who do not At this season the river is a stream of fifty feet permit the cultivation of the Nutmeg in the in width, about knee deep. The other bank is other islands under their control. The Nutmeg | the margin of the red-woods. A mile beyond tree is 25 to 30 feet high when fully grown, with we came to Murphy's mill, located in a valley in foliage of a rich dark green, and very plentiful. the heart of the timber. Though it has been It reaches maturity, or full productiveness, at | running continuously all summer, with a force of

MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS

